BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

As rescanning documents *will not* correct images, please do not report the images to the Image Problem Mailbox.

Remarks

Claim objections

Claims 4 and 13 were objected to for reciting the name of the adenoviral vector as "230-10." These claims have been amended to replace the term "230-10" with the phrase "a polynucleotide having a sequence set forth in SEQ ID NO:5." This language is supported in the instant specification at page 5, line 28 and therefore does not present new matter.

Claim rejections under 35 U.S.C. Section 112, first paragraph

Claims 10, 13, and 14 stand rejected for allegedly not reasonably providing enablement for preventing tissue rejection in a patient. Claim 10 has been amended to be drawn to a "method for decreasing the rejection of transplanted cells." The claim as written is fully supported and enabled by the specification, with an actual working example provided. Claim 10 therefore does not rely on the fact that the murine model presented in Example 9 is an art recognized model for tissue transplantation and rejection. In particular, the actual working example, provided in Example 9, describes the transplantation of heterologous cells into an immunocompetent animal, wherein those cells that were treated ex vivo with polynucleotides encoding the RID complex were able to grow in the animal. Mock transfected cells did not grow in the animal, indicating that the transplanted cells were rejected by the animal. Thus, Example 9 provides an unequivocal demonstration of the decreased rejection of transplanted cells that had been treated ex vivo with a polynucleotide encoding RID. Claim 10, and claims dependent therefrom are thus enabled. Applicants request that the rejection of claims 10 and 13 under Section 112 be withdrawn.

Claim 14 has been canceled and new claim 26 has been submitted. Claim 26 is drawn to the use of the adenovirus of SEQ ID NO:5 to decrease the rejection of cells transplanted in a mouse. Claim 26 is supported in the specification by way of Example 9 (pages 30 – 32), which "demonstrates that the 231-10 vector prevents rejection of human cancer cells transplanted into immunocompetent mice."

Claim rejections under 35 U.S.C. Section 112, second paragraph

Claims 7, 10, 13 and 14 stand rejected as being indefinite. Claim 7 has been amended to be dependent on claim 4. Claim 10 has been amended to state that the "polynucleotide is operably linked to a" CMV promoter. Claim 14 has been cancelled and new claim 26 has been submitted. Applicants request that the rejection of claims 7, 10 and 13 be withdrawn in view of the amendments.

Conclusion

In view of the amendments and arguments submitted with this request for continued examination, Applicants believe that all of the claims are in a condition for allowance. Applicants respectfully request that the rejections against the claims be withdrawn and the claims allowed to issue. If any other issues remain, the Examiner is invited to call the undersigned agent.

Respectfully submitted,

Joseph E. Zahner, Ph.D.
Reg. US PTO - 48224
Thompson Coburn LLP
One US Bank Plaza
St. Louis, Missouri 63101
Telephone: 314-552-6354
Fax: 314-552-7354

Serial No. 09/111,911

Marked-up copy of amended claims:

4. (Twice amended) The method of claim 1 wherein the recombinant adenovirus vector consists of a polynucleotide having a sequence set forth in SEQ ID NO:5 [is 231-10].

7. (Thrice amended) The method of claim 4 wherein the cell is a cell to be transplanted into a patient.

10. (Four times amended) A method for decreasing the rejection of transplanted cells [a patient] comprising contacting the cells ex vivo with a recombinant adenovirus comprising a polynucleotide encoding a RIDα-S polypeptide, a RIDα-L polypeptide and a RIDβ polypeptide, as disclosed in SEQ ID NO:1, SEQ ID NO:2 and SEQ ID NO:4, wherein (a) the polynucleotide [RID complex] is operably linked to a cytomegalovirus ("CMV") promoter, (b) the adenovirus enters the cell and delivers the polynucleotide to the cell, (c) the RIDα-S polypeptide, RIDα-L polypeptide and RIDβ polypeptide are expressed in the cell in an amount sufficient to inhibit apoptosis of the cell, (d) the cell expresses Fas, DR3, TRAIL-R1, or TRAIL-R2, (e) the adenovirus lacks at least one functional E1 gene and (f) the rejection is mediated by Fas receptor activity.

13. (Twice amended) The method of claim 10 wherein the recombinant adenovirus vector consists of a polynucleotide having a sequence set forth in SEQ ID NO:5 [is 231-10].

1075749

26. (New) The method of claim 10 wherein the transplanted cells are in a mouse.